1965 Condensed Insecticide Recommendations

Insect Control BY THE HOMEOWNER

Much has been said about the effects of pesticides, particularly insecticides, on the health and well-being of the American people. The homeowner, however, is also aware that he is constantly faced with a horde of insects, intent upon destroying his property or making his life uncomfortable. Occasionally he can avoid or reduce the destruction wrought by some pests without using an insecticide, but to control most of them, he must rely on an insecticide. This will provide the satisfactory control that he demands.

By careful use of insecticides, the homeowner can enjoy reasonable freedom from insects without endangering either himself, his family, or his pets. He must recognize, however, that insecticides are designed to destroy one group of animals — insects — and can be harmful to other animals, including man himself, if used with disregard of normal safety precautions. It is up to each insecticide user to handle, apply, and store insecticides safely to reap their benefits without suffering from their dangers.

Read the labels and follow instructions carefully. A few million dollars were spent on research to discover the information they contain.

The recommendations in this publication suggest certain insecticides to control insect pests of food, fabric, structures, man and animals, lawns, shrubs, trees, flowers, and vegetables. Others might control the insect, but we have tried to suggest only the safest materials and have tried to simplify the list of insecticides that the homeowner needs. However, with the wide variety of problems and situations, several insecticides are required to meet the needs of the homeowner. Many people prefer to employ the services of a professional exterminator or custom applicator rather than become involved with selection and application of an insecticide.

The names used in these tables are the common coined chemical names, not the trade names, and as such may not be familiar to you. The common name for *DDVP* is *dichlorvos* and for *Sevin* it is *carbaryl.* If there is no coined chemical name, the trade name is used but is capitalized.

In using these tables always read the footnotes before using the insecticides. They list precautions and other pertinent information.

Leaflets describing specific insects, their life history, habits, damage, and cultural control methods are available from the county farm adviser or by writing to 280 Natural Resources Building, Urbana, Illinois. These are indicated in the tables by NHE or Circular numbers.

Recommendations for control of insects on vegetables (Circular 897), on livestock and livestock barns (Circular 898), and on field crops (Circular 899) are also available from the above sources or from the College of Agriculture at Urbana.

Recommendations sometimes change during the growing season. The recommendations given here are printed only once each year and so are subject to change without notice.

These recommendations were prepared by entomologists of the University of Illinois College of Agriculture and the Illinois Natural History Survey and replace mimeographs NHE 88-95, 105, and 110.

CIRCULAR 900 UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE COOPERATIVE EXTENSION SERVICE
In cooperation with ILLINOIS NATURAL HISTORY SURVEY Urbana, Illinois, January, 1965

Cooperative Extension Work in Agriculture and Home Economics: University of Illinois, College of Agriculture, and the United States Department of Agriculture cooperating. LOUIS B. HOWARD, *Director.* Acts approved by Congress May 8 and June 30, 1914.

TREE INSECTS

Insects	Insecticide[1]	Dosage	Suggestions[2]
Aphids (NHE-7)	diazinon 25% E.C. malathion 50-57% E.C.	1 qt. per 100 gal. water	Spray foliage thoroughly with force. Repeat as needed.
Bagworms (NHE-6)	carbaryl 80% W.P. diazinon 25% E.C. lead arsenate W.P. malathion 50-57% E.C.	2 tbl. per gal. water 2 tsp. per gal. water 1 tbl. per gal. water 2 tsp. per gal. water	Spray foliage thoroughly. Apply June 15. Later sprays are less effective.
Borers (NHE-8)	DDT 25% E.C.	3 tbl. per gal. water	Spray trunk at monthly intervals in summer, beginning about May 1. Do not spray foliage. Wrap trunks of newly set trees with heavy paper for first two years or until trees are growing vigorously.
Catalpa sphinx	carbaryl 80% W.P. lead arsenate W.P.	1¼ lb. per 100 gal. water 4 lb. per 100 gal. water	Spray foliage when feeding or worms are first noticed.
Eastern tent caterpillars	Same as for catalpa sphinx		Spray when webbing is first noticed. Spot-treat nests.
Elm leaf beetle (NHE-82)	Same as for catalpa sphinx		Spray as soon as damage is noticed.
European pine shoot moths and Nantucket pine moth (NHE-83)	DDT 25% E.C.	1 gal. per 100 gal. water	Spray foliage thoroughly in mid-April and late June.
Fall webworms	carbaryl 80% W.P.	1¼ lb. per 100 gal. water	Spray when first webs appear; spot-treat nests. Clip off and destroy infested branches or burn out webs.
Galls (NHE-80, 81) Elm cockscomb Hickory	lindane 20% E.C.	1 pt. per 100 gal. water	Spray foliage thoroughly when buds unfold.
Hackberry blister	diazinon 25% E.C. malathion 25% E.C.	1 qt. per 100 gal. water	Spray foliage thoroughly in late May. Kills psyllids in galls.
Cooley spruce Eastern spruce	Either spray above		Apply in late September or October or early spring just before buds swell.
Green-striped mapleworms	Same as for catalpa sphinx		Spray as soon as damage is noticed.
Leaf miners Boxwood Hawthorn Oak	diazinon 25% E.C. malathion 50-57% E.C.	1 qt. per 100 gal. water	Spray foliage thoroughly when mines first appear. Repeat treatment in 10 to 12 days.
Mimosa webworms (NHE-109)	lead arsenate W.P. malathion 50-57% E.C.	4 lb. per 100 gal. water 1 qt. per 100 gal. water	Spray foliage thoroughly when first nests appear (June, July). A repeat treatment may be needed in late summer.
Mites (NHE-58)	Aramite 15% W.P. chlorobenzilate 25% W.P.	2 lb. per 100 gal. water 2 lb. per 100 gal. water	Pay particular attention to underside of leaves when spraying. One treatment is effective for several weeks.
	Kelthane 18.5% E.C. malathion 50-57% E.C.	1 qt. per 100 gal. water 1 qt. per 100 gal. water	Pay particular attention to underside of leaves when spraying. Apply 2 or 3 times at weekly intervals.
Oak kermes	malathion 50-57% E.C.	1 qt. per 100 gal. water	Spray foliage thoroughly about July 1 to kill the crawlers.
Periodical cicadas (NHE-113)	Same as for fall webworms		Spray all branches thoroughly when adults appear. Repeat in 7 to 10 days.
Sawflies	Same as for fall webworms		Spray as soon as worms or damage is evident.

[1] Do not use oil-base sprays on plants. Do not use malathion on canaert redcedar. Repeated use of DDT and carbaryl foliage sprays may cause mite or aphid infestations to increase and become damaging. Do not use insecticides during full bloom.

[2] Treatment dates are for central Illinois. In southern Illinois apply 2 weeks earlier and in northern Illinois 2 weeks later.

Note: E.C. = emulsion concentrate; W.P. = wettable powder.

TREE INSECTS (continued)

Insects	Insecticide[1]	Dosage	Suggestions[2]
Scales (NHE-114) Cottony maple European elm Oystershell Pine needle Scurfy Spruce bud	malathion 50-57% E.C.	1 qt. per 100 gal. water	Spray foliage thoroughly in late May for pine needle scale; in June for scurfy, oystershell, and European elm scales; in early July for cottony maple scale; and between July 10 and 15 for spruce bud scale.
Putnam San Jose Tuliptree	dormant oil	Dilute with water as directed on label	Apply when plants are still dormant in late winter. Do not use on evergreens. For tuliptree scale, a malathion spray in late September is also effective.
Spring cankerworms	Same as for catalpa sphinx		When leaf buds open in spring, while worms are still small.
Spruce budworms	Same as for fall webworm		Spray when caterpillars are noticed.
Sycamore lace bugs	carbaryl 80% W.P. malathion 50-57% E.C.	1¼ lb. per 100 gal. water 1 qt. per 100 gal. water	Spray when nymphs appear, usually in late May.
Yellow-necked caterpillars	Same as for catalpa sphinx		Spray foliage when worms are small.
Zimmerman pine moths	DDT 25% E.C.	2 gal. per 100 gal. water	Spray foliage thoroughly in early August.

[1] Do not use oil-base sprays on plants. Do not use malathion on canaert redcedar. Repeated use of DDT and carbaryl foliage sprays may cause mite or aphid infestations to increase and become damaging. Do not use insecticides during full bloom.
[2] Treatment dates are for central Illinois. In southern Illinois apply 2 weeks earlier and in northern Illinois 2 weeks later.
Note: E.C. = emulsion concentrate; W.P. = wettable powder.

SHRUB INSECTS

Insects	Insecticide[1]	Dosage	Suggestions[2]
Aphids (NHE-7)	diazinon 25% E.C. malathion 50-57% E.C.	2 tsp. per gal. water	Spray foliage thoroughly with force. Repeat as needed.
Bagworms (NHE-6)	carbaryl 80% W.P. diazinon 25% E.C. lead arsenate W.P. malathion 50-57% E.C.	2 tbl. per gal. water 2 tsp. per gal. water 1 tbl. per gal. water 2 tsp. per gal. water	Spray foliage thoroughly. Apply June 15. Later sprays are less effective.
Borers (NHE-8)	DDT 25% E.C.	3 tbl. per gal. water	Spray base of stems at monthly intervals in summer beginning about May 1. Do not spray foliage.
Mealybugs	malathion 50-57% E.C.	2 tsp. per gal. water	Spray foliage thoroughly and with force. Repeat in two weeks.
Scales (NHE-114)	malathion 50-57% E.C.	2 tsp. per gal. water	Spray foliage thoroughly in June for oystershell, Euonymous, and Fletcher's scale and in early July for Juniper and dogwood scales.
Spider mites (NHE-58)	Aramite 15% W.P. chlorobenzilate 25% W.P.	1 tsp. per gal. water 1 tsp. per gal. water	Pay particular attention to underside of leaves when spraying. One treatment is effective for several weeks.
	Kelthane 18.5% E.C. malathion 50-57% E.C.	2 tsp. per gal. water 2 tsp. per gal. water	Pay particular attention to underside of leaves when spraying. Apply 2 or 3 times at weekly intervals.
Thrips	Same as for aphids		Mainly on privet. Spray foliage thoroughly. Do not use DDT on privet.

[1] Do not use oil-base sprays on plants. Do not use malathion on canaert redcedar. Do not use diazinon on ferns or hibiscus plants. Do not use DDT on privet. Repeated use of DDT and carbaryl foliage sprays may cause mite or aphid infestations to increase and become damaging. Do not use insecticides during full bloom.
[2] Treatment dates are listed for central Illinois. In southern Illinois apply 2 weeks earlier and in northern Illinois 2 weeks later.
Note: E.C. = emulsion concentrate; W.P. = wettable powder.

VEGETABLE INSECTS

Insects	Crop	Insecticide	Suggestions
Aphids (NHE-47) Leafhoppers (NHE-22) Mites (NHE-58) Picnic beetles (NHE-40) Thrips	Most garden crops	malathion	Apply on foliage to control the insects. Aphids and leafhoppers transmit plant diseases; early control is important. Mites web underside of leaves; apply insecticide to underside of leaves early before extensive webbing occurs. For picnic beetles, pick and destroy overripe or damaged vegetables.
Blister beetles (NHE-72) Cutworms (NHE-77) Flea beetles (NHE-36) Grasshoppers (NHE-74) Leafhoppers (NHE-22)	Most garden crops	carbaryl	For cutworms, collars of paper, aluminum foil, or metal at planting for small numbers of plants are recommended, or apply insecticide to base of plants at first sign of cutting. Control grasshoppers in garden borders when hoppers are small.
Wireworms (NHE-43) and other soil insects (NHE-23,27)	Most garden crops	diazinon	When tearing up sod for a garden, apply to soil and rake in before planting.
All cabbage worms (NHE-45)	Cabbage and related crops, salad crops, and leafy vegetables	carbaryl or malathion	Presence of white butterflies signals start of infestation. Control worms when small. It is almost impossible to raise cole crops in Illinois without controlling these pests.
Hornworms	Tomatoes	carbaryl	Handpicking usually provides satisfactory control.
Earworms (NHE-33)	Tomatoes and sweet corn	carbaryl	Apply to late-maturing tomatoes 3 to 4 times at 5- to 10-day intervals from small-fruit stage. Apply at fresh-silk stage to early and late corn every 2 days 4 to 5 times.
Colorado potato beetles	Eggplant, potatoes, tomatoes	carbaryl	Apply as needed. Insects usually present only in late May and June.
Potato leafhoppers (NHE-22)	Potatoes, beans	carbaryl or malathion	Apply 3 to 4 times at weekly intervals starting in late May or early June. Late potatoes and beans require additional treatments. Most serious pest of potatoes and beans in Illinois.
Bean leaf beetles (NHE-67)	Beans	carbaryl	Leaves are riddled in early plantings. Apply once or twice as needed.
Mexican bean beetle	Beans	carbaryl	Except for southern Illinois, only a pest of late beans. Apply insecticide to underside of leaves.
Cucumber beetles (NHE-46)	Vine crops	carbaryl or malathion	Apply as soon as beetles appear in spring. When blossoming begins, apply insecticide late in the day so as not to interfere with pollination by bees.
Squash vine borers	Squash	carbaryl	Make weekly applications to crowns and runners when plants begin to vine. Apply late in day.
Squash bugs (NHE-51)	Squash and pumpkins	carbaryl	Apply as soon as small nymphs are seen and as needed. Does not kill large nymphs and mature bugs. Apply late in day.
Corn borer	Sweet corn	carbaryl	Apply 4 times every 3 days to whorl and ear zone of early corn when feeding appears on whorl leaves.

Days to Wait Between Application and Harvest

	Beans	Cabbage and related crops	Onions	Tomatoes	Eggplant	Potatoes
carbaryl	0	3	...	0	0	0
malathion	1	7	3	1	3	0

	Collards, kale, and other leafy crops	Lettuce	Sweet corn	Vine crops	Pumpkin	Peas
carbaryl	14	14	0	0	0	0
malathion	7	14	5	1	3	3

Apply malathion as a 4% dust or mix 1½ teaspoons of 50-57% emulsion concentrate per gallon of water. Apply carbaryl as 5% dust or mix 2 tablespoons of 80% sprayable powder per 1 gallon of water. One gallon of spray should cover 100 feet of row. Apply 1 ounce of actual diazinon per 1000 square feet. To do this mix ¼ pint (4 fluid ounces) of 25% diazinon emulsion in enough water to cover 1000 square feet, usually 2 to 3 gallons of water. Rake into soil.

FLOWER INSECTS

Insect	Insecticide[1]	Dosage	Suggestions
Ants, white grubs, and soil-nesting wasps (NHE-17, 79, 111)	chlordane 45% E.C. dieldrin 18.6% E.C.	8 oz. per gal. water 6 oz. per gal. water	Spray over 1000 square feet of soil and water in thoroughly. Do not spray on plant foliage. Do not plant vegetable root crops on treated soil for 5 years.
Aphids, mealybugs, lacebugs, scales, and white flies (NHE-7, 114)	malathion 50-57% E.C.	2 tsp. per gal. water	Spray foliage thoroughly. Repeat treatments may be needed.
Blister beetles (NHE-72)	carbaryl 80% W.P.	2 tbl. per gal. water	Spray foliage. Repeat treatments may be needed.
Cutworms (NHE-77)	diazinon 25% E.C. diazinon 2% granules	6 oz. per 2-3 gal. water	Spray 1000 sq. ft. soil at base of plants. Do not spray on plant foliage. For granules apply 5 lb. per 1000 sq. ft. Small numbers of plants can be protected with collars of paper, aluminum foil, or metal.
Grasshoppers (NHE-74)	carbaryl 80% W.P. malathion 50-57% E.C.	2 tbl. per gal. water 2 tsp. per gal. water	Spray foliage and also adjacent grassy or weedy areas.
Iris borer	DDT 25% E.C.	1 oz. per gal. water	Spray as soon as new leaflets appear. Repeat 4-6 times at weekly intervals.
Leaf-feeding beetles	carbaryl 80% W.P. DDT 25% E.C.	2 tbl. per gal. water 4 tsp. per gal. water	Spray foliage. Repeat treatments if needed.
Leaf-feeding caterpillars	Same as for leaf-feeding beetles		
Plant bugs and leafhoppers	Same as for leaf-feeding beetles		
Slugs (NHE-84)	Metaldehyde		Apply as a bait to soil. Remove old leaves, stalks, poles, boards, and other debris where slugs like to hide and lay eggs.
Sowbugs	DDT 25% E.C. DDT 5% dust	1 oz. per gal. water	Spray or dust soil around plants. Remove boards and trash under which bugs hide.
Spider mites (NHE-58)	Aramite 15% W.P. chlorobenzilate 25% W.P.	1 tsp. per gal. water 1 tsp. per gal. water	Pay particular attention to underside of leaves when spraying. One treatment is effective for several weeks.
	Kelthane 18.5% E.C. malathion 50-57% E.C.	2 tsp. per gal. water 2 tsp. per gal. water	Pay particular attention to underside of leaves when spraying. Apply 2 or 3 times at weekly intervals.
Springtails	malathion 50-57% E.C. malathion 4% dust	2 tsp. per gal. water	Spray foliage and soil. Apply to soil at base of plants.
Stalk borers (NHE-24)	Same as for leaf-feeding beetles		Spray foliage thoroughly and frequently.
Thrips	Same as for leaf-feeding beetles		Spray foliage carefully.

[1] Do not use oil-base sprays on plants. Do not use malathion on African violets. Do not use carbaryl on Boston ivy. Do not use diazinon on ferns. Repeated use of DDT and carbaryl foliage sprays may cause mite or aphid infestations to increase and become damaging. Do not use insecticides during full bloom.

Note: E.C. = emulsion concentrate; W.P. = wettable powder.

READ THE LABEL AND STUDY THE PRECAUTIONS ON PAGE 8

LAWN INSECTS

Insects	Insecticide[1]	Dosage per 10,000 sq. ft.[2]	Suggestions
True white grubs (NHE-23) Annual white grubs (NHE-23) Japanese beetle larvae (NHE-32) Green June beetle larvae Ants (NHE-111, Cir. 887)	chlordane dieldrin	2 lb. 8 oz. 12 oz.	Provides 5-year protection. In established sod, apply as granules or spray, and water in thoroughly. For seeding, mix in soil before seeding. Do not plant vegetable root crops in treated soil for 5 years.
Ants (NHE-111, Cir. 887) Cicada killer (NHE-79) and other soil-nesting wasps (NHE-17)	diazinon	1 lb.	Apply as spray or granules and water in thoroughly. For individual nests pour 1% diazinon in nest after dark. Seal in with dirt.
Earthworms	chlordane	2 lb. 8 oz.	As for grubs. Control seldom necessary.
Lawn webworms (NHE-115)	carbaryl diazinon	2 lb. 1 lb.	As sprays use at least 25 gal. of water per 10,000 sq. ft. Do not water for 72 hours after treatment. As granules, apply from fertilizer spreader.
Armyworms (NHE-21) Cutworms (NHE-77)	carbaryl	8 oz.	As sprays or granules.
Chinch bugs (NHE-35)	Same as for webworms		As sprays or granules. Use 5 to 10 gal. of water per 10,000 sq. ft.
Leafhoppers (NHE-22)	carbaryl methoxychlor	8 oz. 4 oz.	As a spray.
Millipedes and sowbugs	As for webworms		
Mites (NHE-58)	Kelthane malathion	2 oz. 6 oz.	Spray grass thoroughly, 20 to 25 gal. of water per 10,000 sq. ft.
Chiggers	diazinon	8 oz.	Spray grass thoroughly. Use at least 10 gal. of water per 10,000 sq. ft.
Slugs (NHE-84)	Slug baits	Scatter in grass	Where slugs are numerous.

[1] The following insecticide formulations commonly contain these amounts of active ingredients by weight. Carbaryl, 1¼ lb. of 80% W.P. contains 1 lb. actual carbaryl; chlordane, 1 gal. of 45% E.C. contains 4 lb. actual chlordane; diazinon, 1 gal. of 25% E.C. contains 2 lb. actual diazinon; dieldrin, 1 gal. of 18.6% E.C. contains 1½ lb. actual dieldrin; Kelthane, 1 gal. of 18.5% E.C. contains 1½ lb. actual Kelthane; malathion, 1 gal. of 50-57% E.C. contains 5 lb. actual malathion; methoxychlor, 1 gal. of 25% E.C. contains 2 lb. actual methoxychlor.

[2] Amount per 10,000 square feet (¼ acre) is in terms of the active ingredient. Do not allow people or pets on lawn until spray has dried.

APPLY INSECTICIDES CAREFULLY NOT CARELESSLY,
AND THOUGHTFULLY NOT THOUGHTLESSLY

ANIMAL AND NUISANCE INSECTS

Insects	Insecticide[1]	Method of application	Suggestions
Flies, mosquitoes, gnats (NHE-16)	Outdoors: malathion 0.5% Purchase E.C. and dilute with water.	Spray shrubbery, flowers, and tall grass, and around doorways and refuse containers	Dispose of refuse twice each week. Eliminate standing water in eaves troughs, old tires, toys, tin cans, etc.
	Indoors: pyrethrin 0.1% space spray or 20% dichlorvos resin strips	Use fine mist or fog of pyrethrin or 1 resin strip per 1000 cu. ft.	Use Dimetilan 4% plastic bands in attached garages (1 per 100 sq. ft.). Use screening and keep repaired.
Fleas (NHE-107)	carbaryl 5% dust malathion 4% dust	Dust areas inside and outside the home where the pet rests	Dust pets as needed.
Chiggers and ticks (NHE-56)	See chiggers under lawn insects for insecticides and method of application		Indoors use 2% chlordane in oil as spray and treat pets with 4% malathion or 5% carbaryl. For people use DEET as a repellent.
Hornets, wasps, bees, spiders (NHE-17,116)	DDT 5% O. or 10% dust chlordane 2% O. or 5% dust dieldrin 0.5% O. or 1% dust malathion 1% O. or 4% dust	Treat nests of bees, wasps or hornets after dark. Use water-base sprays outdoors.	For spiders use foundation spray as for ants. Wasp or bee nests in partitions can be fumigated with a farm liquid fumigant applied above the nest. Avoid breathing fumigant vapors; in enclosed areas wear a suitable gas mask. Avoid exposing occupants to vapors coming through openings in walls.
Cluster flies (NHE-1) Elm leaf beetles (NHE-82)	DDT 5% O. or 10% dust dieldrin 0.5% O. or 1% dust	Brush or spray inside surfaces of window casements. Apply dust in sash-cord openings.	For cluster flies use dichlorvos strips as suggested above for indoor flies. Caulk around windows and eaves to prevent entry. Plug sash-cord openings with cotton.
Boxelder bugs (NHE-9)	dieldrin 0.5% lindane 0.5% Purchase E.C. and dilute with water.	Spray on sides and foundation of house and 3 ft. of adjacent soil.	Seal cracks and crevices to prevent entry. Removal of seed-bearing boxelder trees will help. Vacuum, or spray with 0.1% pyrethrins in the house.
Clover mites (NHE-2)	Aramite 0.15% chlorobenzilate 0.25% Kelthane 0.05% Purchase E.C. and dilute with water.	Spray outside of the house from ground up to windows and adjacent 10 ft. of lawn.	Remove grass and weeds from 18-inch strip next to foundation. Vacuum, or spray with 0.1% pyrethrin in house.
Millipedes or centipedes	dieldrin 0.5% O.	Spray or dust runways in buildings	Use water-diluted spray of dieldrin, carbaryl, or diazinon on outside foundation and 3 ft. of adjacent soil.

[1] Purchase especially prepared ready-to-use forms of insecticides for indoor use. Do not use oil-base sprays on plants or near open flames. Do not spray or dust food, food-handling surfaces (counters, chopping boards, etc.), or cooking and eating utensils.

Note: E.C. = emulsion concentrate; W.P. = wettable powder; O. = oil solution.

STORE INSECTICIDES SAFELY
IN THE ORIGINAL LABELLED CONTAINER

FOOD, FABRIC, AND STRUCTURAL INSECTS

Insects	Insecticide[1]	Method of application	Suggestions
Ants (NHE-111, Cir. 887)	chlordane 2% O. dieldrin 0.5% O.	Spray runways	Use same insecticide at same dose but as E.C. diluted with water. Spray completely around outside foundation wall and adjacent 4-inch strip of soil.
Cereal insects (NHE-11)	DDT 5% O. or 10% dust	Spray or dust inside food cabinets and shelves	Discard infested packages. Brush out or vacuum food cabinets and shelves.
Roaches (NHE-3,4,5)	chlordane 2% O. or 5% dust dieldrin 0.5% O. or 1% dust	Spray or dust runways and hiding places	More complete treatment is needed for successful control of brown-banded roach. Repeat treatments may be needed in 2 or 3 weeks.
Clothes moths and carpet beetles (NHE-87)	DDT 5% O. or 10% dust lindane 0.5% O. or 1% dust	Spray or dust storage areas and any infested places	Recently cleaned or washed woolens may be safely stored in insect-free chests and plastic bags. Air and brush other woolens in bright sunlight before storing, or treat lightly with DDT.
Silverfish (NHE-86)	DDT 5% O. or 10% dust	Spray or dust runways	Baits using 1 part sodium fluoride plus 9 parts pancake flour are also effective.
Crickets	Same as for ants		
Termites (NHE-57)	chlordane 1% dieldrin 0.5% Purchase E.C. and dilute with water or oil.	Soak 6-inch width of soil down to footing around and beneath building, 1 gal. per 2 cu. ft. of soil	Remove termite mud tubes connecting wood to soil. Eliminate wood-to-soil contacts. Ventilate to keep unexcavated areas dry.
Powder-post beetles (NHE-85)	chlordane 2% O. DDT 5% O. pentachlorophenol 5% O.	Spray or brush on infested wood several times	Pentachlorophenol is a wood preservative also, but it has a strong persistent odor.
Carpenter ants (NHE-10)	chlordane 2% O. or 5% dust dieldrin 0.5% O. or 1% dust	Spray or dust nest entrances	Use foundation sprays as recommended for ants.

[1] Purchase especially prepared ready-to-use forms of insecticides for indoor use. Do not use oil-base sprays on plants or near open flames. Do not spray or dust food, food-handling surfaces (counters, chopping boards, etc.) or cooking and eating utensils.

Note: E.C. = emulsion concentrate; W.P. = wettable powder; O. = oil solution.

FOR YOUR PROTECTION

Always handle insecticides with respect. After all, the people most likely to suffer ill effects from insecticides are the applicator and his family. Accidents and careless, needless overexposure can be avoided. During 1960, 1961, 1962, and 1963, there were 11 deaths in Illinois due to accidental ingestion of pesticides: 7 from insecticides, 3 from rodenticides, and 1 due to a herbicide. Of these 11, four were from baits.

Each year more than 750 Illinois children under 12 years of age are rushed to a doctor because of suspected pesticide ingestion or excessive exposure. A study of such cases showed that 50 percent of the children obtained the pesticide while it was in use and 13 percent obtained it from storage (the source was not known in the rest). Fifty-three percent involved insecticides used as baits. All these accidents could have been prevented. The following suggestions for safe use of pesticides are designed to prevent such unfortunate careless accidents.

1. Store insecticides out of reach of children, irresponsible persons, or animals; store preferably in a locked cabinet.

2. If you use a bait around or in the home, place it after the children have retired and pick it up in the morning before they get up. Furthermore, place it out of their reach. At present we do not encourage use of baits for insect control.

3. Put insecticide containers back in the storage area before applying insecticide. Small children have found open bottles by the water tap.

4. Avoid breathing insecticide sprays and dusts over an extended period. This is particularly true in enclosed areas such as crawl spaces, closets, basements, and attics.

5. Wash with soap and water exposed parts of body and clothes contaminated with insecticide.

6. Wear rubber gloves when handling insecticide concentrates.

7. Do not smoke while handling or using insecticides.

8. Do not blow out clogged nozzles with your mouth.

9. Leave unused insecticides in their original containers with the labels on them and in locked cabinets.

10. Wash out and bury or burn empty insecticide containers.

11. Do not leave puddles of spray on impervious surfaces.

12. Do not apply insecticides to fish ponds.

13. Do not apply insecticides near dug wells or cisterns.

14. Observe all precautions listed on the label.

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